Docket No.: 047145-0251 **PATENT** 

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of Customer Number: 80236

VANDERVEEN, TIMOTHY W. Confirmation Number: 9236

Application No.: 10/750,032 Group Art Unit: 3686

Filed: December 31, 2003 Examiner: Rajiv J. Raj

For: CENTRALIZED MEDICATION MANAGEMENT SYSTEM

## **APPEAL BRIEF**

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CERTIFICATE OF ELECTRONIC TRANSMISSION

I hereby certify that this correspondence is being electronically-transmitted to the United States Patent and

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Sir:

This Appeal Brief is submitted in support of the Notice of Appeal filed on August 18, 2010, wherein Appellant appeals from the Examiner's rejection of claims 1 and 3 to 25.

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# I. REAL PARTY IN INTEREST

The real party in interest in this application is CareFusion 303, Inc, by assignment recorded on January 18, 2010, at Reel 023800, Frame 0598.

# II. RELATED APPEALS AND INTERFERENCES

The Appellants are unaware of any related appeals and interferences.

# III. STATUS OF CLAIMS

The application was originally filed with claims 1 to 24. Claims 1 and 3 to 25 have been finally rejected. Claim 2 had been cancelled prior to the final rejection. Claims 1 and 3 to 25 are the subject of this appeal. These claims are copied in the Claims Appendix to this Appeal Brief.

# IV. STATUS OF AMENDMENTS

Claims 1 and 3 to 25 were finally rejected in the Final Office Action issued on May 18, 2010. The rejection of Claims 1 and 3 to 25, as amended in response to the non-final Office Action dated November 16, 2009, is being appealed. No claim amendments were presented after issuance of the Final Office Action.

#### V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent Claim 1 relates to a patient care system, comprising a plurality of medication administration devices (e.g., 92, FIG. 1) for delivering medication to a plurality of patients, a first central processing unit (CPU) (80, FIG. 1) located at a patient's bedside (e.g., para. [0037]) and in communication with a subset of the plurality of medication administration devices and configured to monitor the subset of the plurality of medication administration devices and display results of the monitoring. The system further comprises a memory (e.g., para. [0060]) associated with each medication administration device (e.g., 92, FIG. 1) for storing medication administration information associated with the medication delivered to each patient, the medication administration information including a plurality of medication administration parameters and a parameter value associated with each medication administration parameter. The system further comprises a second CPU (e.g., para. [0042], element 70, FIG. 1) in communication with the first CPU 80 over a hospital network (e.g., 50, FIG. 1), the second CPU 70 located at a nursing station and configured to report patient information pertaining to a hospital unit. The system further comprises a central processor 60 configured to receive medication administration information from each of the plurality of medication administration devices 92, a central computer display connected to the central processor 60 and configured to display a color coded display of status and schedule information for all drug administrations to the plurality of patients (e.g., para. [0041]), a database operatively connected to the central processor 60 for storing medication administration guidelines representing acceptable values for the plurality of medication administration parameters (e.g., para [0044]), and means for communicating medication administration information from each of the plurality of medication administration devices to the central processor 60. The first CPU is configured to receive an alarm generated by one of the subset of the plurality of medication administration devices 92 and broadcast the received alarm after a predetermined period (e.g., para. [0049]). The central processor 60 is further configured to compare the parameter values to the acceptable values for the parameters in the medication administration guidelines (e.g., para. [0066]). The central processor 60 is further configured to display a list of ongoing infusions to the plurality of patients (e.g., para. [0102]). The central processor 60 and the CPU are communicatively coupled via a local area network 5.

Claim 17 relates to a computer-implemented method for centralized monitoring of medication administration for a plurality of patients, comprising monitoring medication administration information associated with medication delivered to each patient (e.g., para. [0111]), the medication administration

information including a plurality of medication administration parameters and a parameter value associated with each medication administration parameter (e.g., para. [0060]), storing a database of medication administration guidelines representing acceptable values for the medication administration parameters (e.g., para. [0066] and FIG. 9), communicating the medication administration information and the medication administration guidelines to a central location (e.g., paragraphs [0040] and [0060]), comparing, on a computer at the central location, the parameter values to the acceptable values for the parameters in the medication administration guidelines (e.g., para. [0066]), said acceptable values comprising a soft limit and a hard limit (e.g., para. [0097]), operating a medication administration device by issuing an alarm if one of said parameter values contravenes its corresponding hard limit (e.g., para. [0098]); and providing, using the computer at the central location, a visual indication on a computer display at the central location if one of the parameter values contravenes its corresponding soft limit in the medication administration guideline, and requiring an acknowledgment from a user before operating the medication administration device using a medical administration parameter contravening a corresponding soft limit (e.g., para. [0098]).

Claim 25 relates to a computer implemented method of administering medication to a patient in a hospital. The method comprises: reviewing, at a pharmacy computer 60, a medication order prescribed by a physician (e.g., para. [0062]), checking, at the pharmacy computer, the medication order for incompatibilities with the patient's record (e.g., para. [0089]), transferring the medication order to a nursing station 70 following the checking for incompatibilities (e.g., para. [0090]), programming a clinical device connected to the patient and communicatively coupled with the pharmacy computer with medication delivery parameters (e.g., para. [0093]), verifying, at the pharmacy computer, the medication delivery parameters (e.g., para. [0094]), and if the verification passes, then administering the medication order to the patient using the clinical device according to the verified medication delivery parameters (e.g., para. [0097]), and if the verification fails, then sounding an alarm at the pharmacy computer (e.g., para. [0098]), allowing a user to correct or override, in real-time, the medication delivery parameters (e.g., para. [0056]); and administering the medication order to the patient using the clinical device according to the corrected or overridden medical delivery parameters (e.g., para. [0095]).

# VI. GROUNDS OF REJECTION TO BE REVIEWED BY APPEAL

1. Whether claims 1, 3 to 7, 9 to 21 and 23 to 25 are unpatentable under 35 U.S.C. §103(a) over Halvorson (US Patent No. 4,847,764, hereinafter "Halvorson"), Allen, III (US Patent No. 4,731,726, hereinafter "Allen") and Bui et al. (U.S. Pub. No. 2003/0140928 A1, hereinafter Bui).

2. Whether claims 8 and 22 are unpatentable under 35 U.S.C. §103(a) over Halvorson, Allen and Kaufman et al. (US Patent. No. 5267174, hereinafter "Kaufman").

### VII. ARGUMENT

1. Whether claims 1, 3 to 7, 9 to 21 and 23 to 25 are unpatentable under 35 U.S.C. §103(a) over Halvorson Allen and Bui

## A. Patentability of independent Claim 1

The Position Taken By the Final Office Action

The Final Office Action asserts that each claim limitation recited in independent Claim 1 is obvious in view of the combination of Halvorson, Allen and Bui. In particular, the Final Office Action concedes that while the combination of Halvorson and Allen does not show the first CPU located at a patient's bedside, Bui, at paragraphs [0015] to [0023] and FIG. 1, shows the first CPU recited in Claim 1 of the present application. *See*, Final Office Action, p. 4, lines 15-19.

## Appellant's Position

The combination of Halvorson, Allen and Bui fails to disclose each and every limitation recited in Claim 1 of the present application. In particular, Bui fails to teach or suggest at least that "the first CPU is configured to receive an alarm generated by one of the subset of the plurality of medication administration devices and broadcast the received alarm after a predetermined period," as required by Claim 1 of the present application. Neither Halvorson nor Allen are alleged to disclose or suggest such a feature.

# (a). The applied references fail to disclose at least that a first CPU is configured to receive an alarm and broadcast the received alarm after a predetermined period of time

As discussed earlier, independent Claim 1 provides for a patient care system that includes, *inter alia*, a first central processing unit (CPU) located at a patient's bedside. The first CPU is configured to receive an alarm generated by a medication administration device and broadcast the received alarm after a predetermined period.

At least as described in para. [0049] of the present application, the programs of the care management system 30 of the present application control alarms or alerts generated by one of the modular applications. Alarms may be routed automatically to the appropriate video display. For example, an occlusion alarm generated by a pump 92 may remain local to the patient's bedside for a predetermined period. After that period the patient's bedside computer 80 may then broadcast the alarm by causing the alarm to be communicated over the LAN 50 to alert other hospital staff to a potential problem or to cause a particular person responsible for the care of a patient, such as, for example, a physician or nurse, to be paged. Therefore, it will be appreciated by one of skill in the art that the system and method disclosed in the present application provide a healthcare professional the opportunity to correct a situation before the alarm is escalated to an even wider group of healthcare professionals. It is respectfully submitted that Bui does not teach or suggest at least the alarm feature recited in Claim 1 of the present application.

The Final Office Action concedes that the combination of Halvorson and Allen does not teach that "the first CPU is configured to receive an alarm …. and broadcast the received alarm after a predetermined period." *See*, Final Office Action, page 4, lines 23-25. The Final Office Action cites Bui's paragraphs [0048], [0112] and [0131] to [0137] as teaching the "alarm" feature recited in Claim 1 of the present application.

Bui discloses a system and a method of providing medical treatment, such as a medication, to a patient (abstract). Applicant has studied the Bui reference carefully and finds that Bui discloses the following medical processors: the pharmacy computer 104, the central system 108, the digital assistant 118, the infusion pump 120 and the processor 202. The Final Office Action fails to state which one of these medical processors of Bui is considered by the Final Office Action to teach the first CPU recited in Claim 1. However, none of these computers (or processors therein) are seen to receive an alarm from a medication administration device, which that same computer broadcasts after a predetermined time period.

In support of the conclusion by the Final Office Action that Bui teaches the "alarm" feature recited in Claim 1 of the present application, the Final Office Action seems to have cited every paragraph that includes where the phrase "alert" in used in the Bui specification. *See*, Final Office Action, page 4, last line. However, none of the cited paragraphs of Bui are seen to teach the "alarm" feature recited in Claim 1 of the present application, i.e., an alarm that is received at a patient's bedside CPU and then broadcast after a predetermined period of time. In paragraph [0048], Bui teaches that

"the patient care system 100 will *alert* the pharmacist and/or clinician 116." In paragraph [0112], Bui teaches that "the clinician 116 is *alerted* on digital assistant 118 and/or cart 132." In paragraphs [0130] and [0131], Bui teaches a closed loop infusion therapy management system, which "*alerts* the pharmacy of the need for additional infusion bags." In paragraph [0134], Bui teaches that "[t]he pharmacy is *alerted* in *real time* (emphasis added)." In paragraph [0135], Bui teaches that "the clinician 116 is *alerted* on the digital assistant 118." In paragraph [0137], Bui teaches that the system 100 *alerts* the pharmacist "that infusion orders require authorization." In addition, in paragraph [0137], Bui teaches that "digital assistant 118 [*alerts*] the clinician 116 that the infusion order should be administered." While all of these "alerts" are interesting and may be of value clinically, none of these alerts shows or suggests the alarm recited in Claim 1 of the present application. Furthermore, it is evident to one of skill in the art that none of these descriptions of alerts teaches or fairly suggests receiving alarms at a first CPU by the bedside and broadcasting the alarms after a predetermined period.

By contrast, Claim 1 of the present application requires "a first central processing unit (CPU) located at a patient's bedside and in communication with a subset of the plurality of medication administration devices and configured to monitor the subset of the plurality of medication administration devices and display results of the monitoring ... wherein the first CPU is configured to receive an alarm generated by one of the subset of the plurality of medication administration devices and broadcast the received alarm after a predetermined period."

"All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). MPEP 2143.03. It is respectfully submitted that the Final Office Action has failed to judge the patentability of Claim 1 by considering all words recited in Claim 1. In particular, the Final Office Action has failed to establish that the applied references teach or suggest a patient care system comprising a first CPU located at a patient's bedside and configured to receive an alarm generated by one of the subset of the plurality of medication administration devices and broadcast the received alarm after a predetermined period, as recited in Claim 1 of the present application.

Accordingly, it is respectfully submitted that the Final Office Action has failed to satisfy the burden of showing that Halvorson, Allen and Bui teach each and every element of the claimed invention. Claim 1 is therefore believed to have been erroneously rejected by the Final Office Action.

### **B. Patentability of Independent Claim 17**

As previously discussed, independent Claim 17 is directed to a centralized monitoring of medical administration, that includes, *inter alia*, comparing parameter values to acceptable values comprising a soft limit and a hard limit. The Final Office Action cites Halvorson as teaching "the soft and hard limits." *See*, Final Office Action, p. 11, lines 7-8 and p. 17, item 16. Applicant respectfully disagrees.

For the rejection of the "hard limit" and "soft limit" claim features, Halvorson's FIGS. 4 to 25 and related text were cited in the non-final Office Action of November 16, 2009. Applicant has traversed stating in the reply dated March 11, 2010, that the cited portion of Halvorson was not seen to teach a hard limit and a soft limit. In the ensuing response, the Final Office Action added specific citation to col. 2, lines 54 to 61 of Halvorson in alleging that Halvorson teaches the "hard limit" and the "soft limit" features recited in Claim 17 of the present application. Applicant respectfully disagrees.

Halvorson is directed to a system for dispensing medications in a healthcare institution. The text in col. 2, lines 54 to 51 of Halvorson, alleged by the Final Office Action as teaching a soft limit and a hard limit, is reproduced below.

Other advantages are the elimination of narcotic counts, real-time inventory evalution, the ability to customize the hours and days to administer medication on a routine basis, the ability to limit the minimum and maximum times between doses on as needed medications, the ability to suspend all or specific orders for a patient for a variety of conditions, as well as the ability generate numerous administrative reports on demand.

It is evident from the text above that while Halvorson teaches "the ability to limit the minimum and maximum times between doses," there is simply no teaching of a "hard limit" whereby a medical administration device is operated by issuing an alarm when a parameter contravenes the hard limit. Also, there is no mention or suggestion elsewhere in Halvorson of a soft limit, whereby an acknowledgement is required from the user before operating the medication administration device if a medication administration parameter contravenes the soft limit, as required by Claim 17 of the present application.

In this regard, the Final Office Action does not contend that Allen or Bui teach the hard limit/soft limit features either. Indeed, Allen and Bui are seen to be silent about the hard limit/soft limit features recited in Claim 17 of the present application.

It is therefore respectfully submitted that the Final Office Action has failed to establish a *prima* facie case of obviousness at least with respect to the "hard limit" and the "soft limit" features recited in Claim 17 of the present application.

At least for the above reasons, Claim 17 is believed to have been erroneously rejected by the Final Office Action.

#### C. Patentability of independent Claim 25

As previously discussed, Claim 25 is directed to a computer-implemented method of administering medication to a patient in a hospital, that includes, *inter alia*, verifying medication delivery parameters at a pharmacy computer and if the verification fails, then allowing a user to correct or override the medication delivery parameters in real time. The Final Office Action rejects Claim 25, citing that Bui teaches allowing a user to correct or override, *in real time*, medication delivery parameters. *See*, Final Office Action, p. 15, line 20. Applicant respectfully disagrees.

Bui is directed to a medical treatment verification system (title). In para. [0048] and [0049], Bui teaches the process of activation of a prescription. Bui discloses that, if a clinician has the authority to immediately activate an order, the patient care system 100 may bypass the prescription activation module 306. Bui's immediate medication activation by a clinician may therefore be performed regardless of verification of medication administration parameters. Furthermore, in para. [0049], Bui teaches that a clinician's activation of an order bypasses the prescription activation module 306, which contains medication parameter calculations and alerts the clinician. Therefore, Bui is seen to teach a time sequence in which *first* an immediate activation of order may be performed, and if the immediate activation is not performed, then *next* medication parameter calculations, including alerting, may be performed.

By contrast, the method recited in Claim 25 *first* performs verification of medication delivery parameters and if the verification fails, then <u>next</u> sounds an alarm and allows overriding in real-time by a user. By contrast, as discussed below, an alert is raised in Bui <u>after</u> the immediate activation of order is performed. Bui teaches that after a clinician is alerted, a reason code may be asked for adjustments in medication delivery parameters. The Office Action does not provide any reasons why Bui can be broadly read to cover the sequence of verification steps recited in Claim 25 of the present application.

In this regard, the Final Office Action has conceded that Allen and Halvorson do not teach the "real-time overriding" feature recited in claim 25 of the present application.

At least for the above reasons, it is respectfully submitted that the Final Office Action has failed to establish that the applied references teach or suggest the method recited in Claim 25 of the present application. It is respectfully submitted that the rejection of Claim 25 under 35 U.S.C. §103 is in error and such rejection should be overturned.

#### D. Patentability of dependent Claims 3 to 7, 9 to 16, 18 to 21, 23 and 24

Claims 3 to 7, 9 to 16, 18 to 21, 23 and 24 are believed to be patentable over the applied references at least for similar reasons presented with respect to their corresponding independent claim.

At least for the above reasons, it is respectfully submitted that the rejection of claims 3 to 7, 9 to 16, 18 to 21, 23 and 24 under 35 U.S.C. §103 is in error and such rejection should be overturned.

# 2. Whether claims 8 and 22 are unpatentable under 35 U.S.C. §103(a) over Halvorson, Allen, Bui and Kaufman

The Position Taken By the Final Office Action

The combination of Halvorson, Allen, Bui and Kaufman teaches each and every feature of Claims 8 and 22.

#### Appellant's Position

Kaufman is not seen to remedy the above-discussed deficiencies of Halvorson, Allen and Bui. Furthermore, the Final Office Action has not established that Kaufman discloses any of the above-discussed features recited in corresponding independent Claims 1 or 17. At least for this reason, the combination of Halvorson, Allen, Bui and Kaufman fails to teach or suggest every feature recited in Claims 8 and 22 of the present application.

It is respectfully submitted that the rejections of Claims 8 and 22 under 35 U.S.C. §103 are in error and such rejection should be overturned.

VIII. Conclusion

Since each of the independent claims is patentably distinct from the combination of Halvorson,

Allen and Bui, the rejection of Claims 1 and 17 and 24 under 35 U.S.C. §103, and Claims 3 to 7, 9 to

16, 18 to 21, 23 and 24 that depend therefrom, should be overturned. Such action is courteously

solicited.

Furthermore, since the Examiner has not established obviousness over Halvorson, Allen and

Kaufman, the 35 U.S.C. §103 rejections of Claims 8 and 22 should be overturned. Such action is

courteously solicited.

In light of the arguments presented above, expedient allowance of Claims 1 and 3 to 25 is

respectfully requested.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby

made. Please charge any shortage in fees due in connection with the filing of this paper, including

extension of time fees, to Deposit Account 502624 and please credit any excess fees to such deposit

account.

Respectfully submitted,

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#### **CLAIMS APPENDIX**

1. (Previously presented) A patient care system, comprising:

a plurality of medication administration devices for delivering medication to a plurality of patients;

a first central processing unit (CPU) located at a patient's bedside and in communication with a subset of the plurality of medication administration devices and configured to monitor the subset of the plurality of medication administration devices and display results of the monitoring;

a memory associated with each medication administration device for storing medication administration information associated with the medication delivered to each patient, the medication administration information including a plurality of medication administration parameters and a parameter value associated with each medication administration parameter;

a second CPU in communication with the first CPU over a hospital network, the second CPU located at a nursing station and configured to report patient information pertaining to a hospital unit;

a central processor configured to receive medication administration information from each of the plurality of medication administration devices;

a central computer display connected to the central processor and configured to display a color coded display of status and schedule information for all drug administrations to the plurality of patients;

a database operatively connected to the central processor for storing medication administration guidelines representing acceptable values for the plurality of medication administration parameters; and

means for communicating medication administration information from each of the plurality of medication administration devices to the central processor;

wherein the first CPU is configured to receive an alarm generated by one of the subset of the plurality of medication administration devices and broadcast the received alarm after a predetermined period;

wherein the central processor is further configured to compare the parameter values to

the acceptable values for the parameters in the medication administration guidelines;

wherein the central processor is further configured to display a list of ongoing infusions to the plurality of patients;

wherein the central processor and the CPU are communicatively coupled via a local area network.

- 2. (Canceled)
- 3. (Previously presented) The patient care system of claim 1, wherein the central processor is further configured to provide a visual indication on the central computer display if one of the parameter values does not fall within the acceptable values for the parameter in the corresponding medication administration guideline.
- 4. (Previously presented) The patient care system of claim 1, wherein the central computer display is located in a pharmacy.
- (Original) The patient care system of claim 3, further comprising:
   means for a clinician to adjust the medication administration parameter values in response to the visual indication.
- 6. (Original) The patient care system of claim 5, further comprising: means for the clinician to report to a caregiver at the point of care the adjusted medication administration parameter values.
- 7. (Original) The patient care system of claim 1, wherein the central processor is further configured to automatically adjust the medication administration parameter values in response to an indication that one of the parameter values does not fall within the acceptable values for the parameter in the corresponding medication administration guideline.
- 8. (Original) The patient care system of claim 1, wherein the central processor periodically compares the parameter values to the acceptable values for the parameters in the medication administration guidelines throughout the administration of the medication.
- 9. (Previously presented) The patient care system of claim 1, further comprising: means for communication between a caregiver located at one of the medication administration devices and a clinician located at the central computer display.
- 10. (Original) The patient care system of claim 1, wherein the medication administration parameters include current medication administration device operating parameters.
  - 11. (Original) The patient care system of claim 1, wherein the medication administration

guidelines include the acceptable values for the medication administration parameters based on patient condition data.

12. (Original) The patient care system of claim 11, further comprising:

a memory operatively connected to the central processor for storing patient condition data associated with each patient;

wherein the processor is further configured to compare the parameter values to the acceptable values for the parameters in the medication administration guidelines corresponding to the stored patient condition data associated with each patient.

- 13. (Original) The patient care system of claim 12, wherein the patient condition data for each patient includes current physiological status.
- 14. (Original) The patient care system of claim 1, wherein the medication administration guidelines include the acceptable values for the medication administration parameters based on medication indication data.
  - 15. (Original) The patient care system of claim 1, further comprising:

a memory in which is stored medication order information for a plurality of patients, the medication order information including a plurality of prescribed medication administration parameters for delivering medication to each patient and a parameter value associated with each prescribed medication administration parameter; and

wherein the processor is further configured to compare the parameter values of the prescribed medication administration parameters to the acceptable values for the medication administration parameters in the medication administration guidelines.

- 16. (Original) The patient care system of claim 15, further comprising a central computer display operatively connected to the central processor and wherein the central processor is further configured to display the medication order information and the medication administration information on the central computer display.
- 17. (Previously presented) A computer-implemented method for centralized monitoring of medication administration for a plurality of patients, comprising:

monitoring medication administration information associated with medication delivered to each patient, the medication administration information including a plurality of medication administration parameters and a parameter value associated with each medication administration parameter;

storing a database of medication administration guidelines representing acceptable values for the

medication administration parameters;

communicating the medication administration information and the medication administration guidelines to a central location;

comparing, on a computer at the central location, the parameter values to the acceptable values for the parameters in the medication administration guidelines, said acceptable values comprising a soft limit and a hard limit;

operating a medication administration device by issuing an alarm if one of said parameter values contravenes its corresponding hard limit;

providing, using the computer at the central location, a visual indication on a computer display at the central location if one of the parameter values contravenes its corresponding soft limit in the medication administration guideline; and

requiring an acknowledgment from a user before operating the medication administration device using a medical administration parameter contravening a corresponding soft limit.

- 18. (Previously Presented) The method of claim 17, further comprising: displaying the medication administration information on the computer display at the central location.
- 19. (Original) The method of claim 18, wherein providing an indication at the central location includes displaying an alert on the computer display.
- 20. (Original) The method of claim 17, further comprising:
  adjusting the medication administration parameter values from the central location in response to the indication.
  - 21. (Original) The method of claim 17, further comprising: communicating information from the central location to a care-giver located at the point of care.
  - 22. (Original) The method of claim 17, further comprising:

periodically comparing the parameter values to the acceptable values for the parameters in the medication administration guidelines throughout the administration.

23. (Original) The method of claim 17, wherein the medication administration guidelines include the acceptable values for the medication administration parameters based on patient condition data.

24. (Original) The method of claim 17, wherein the medication administration guidelines include the acceptable values for the medication administration parameters based on medication indication data.

25. (Previously presented) A computer implemented method of administering medication to a patient in a hospital, the method comprising:

reviewing, at a pharmacy computer, a medication order prescribed by a physician; checking, at the pharmacy computer, the medication order for incompatibilities with the patient's record;

transferring the medication order to a nursing station following the checking for incompatibilities;

programming a clinical device connected to the patient and communicatively coupled with the pharmacy computer with medication delivery parameters;

verifying, at the pharmacy computer, the medication delivery parameters; and if the verification passes, then administering the medication order to the patient using the clinical device according to the verified medication delivery parameters; and

if the verification fails, then

sounding an alarm at the pharmacy computer;

allowing a user to correct or override, in real-time, the medication delivery parameters;

and

administering the medication order to the patient using the clinical device according to the corrected or overridden medical delivery parameters.

26. (Canceled)

# **EVIDENCE APPENDIX**

None.

# **RELATED PROCEEDINGS APPENDIX**

None.